DEPARTMENT OF AGRICULTURE
PESTICIDE APPLICATOR UPDATE

Issue 15 **Fall 1996**

Commercial Applicator Training

Aerial applicators alert: A couple of changes have occurred this summer to be aware of. First, the annual recertification training session historically held in February is now set for November 14, 1996 at the Ramkota Inn in Pierre. Secondly, the Nebraska Department of Agriculture (NDA) has informed South Dakota of a new requirement for aerial applicator licensing there. It is now required that aerial applicators pass a 30 question aerial exam in Nebraska to qualify for the license in their state. However, NDA has informed us that South Dakota aerial applicators that attend the SD aerial applicator training session will be exempt from the test in Nebraska.

Commercial applicators treating areas for mosquito control now must be certified in category 9. Those not already holding this category may contact their local county extension office for testing dates and times.

Plan ahead for future commercial applicator training. Sessions for categories 1a, 1b, 1c, 2, 3, 4, 5, and 7 will be held on the following dates in 1997:

January 22	Aberdeen
January 23	Watertown
January 24	Brookings
January 27	Yankton
January 28	Mitchell
January 29	Rapid City
January 30	Pierre
January 31	Sioux Falls

If you hold category 6 (aquatic) or category 15 (wood preservation) , category training will be held in select sites and will not be held again until January of 1999. Be sure to attend training in January 1997 in order to avoid re-testing in these categories. A final schedule of dates, time and locations will be sent to commercial applicators in mid-December, 1996.

Secretary Anderson Retires

Effective September 27, 1996, Dean Anderson retired from his position as South Dakota Secretary of Agriculture which he held since January of 1995. After coming out of retirement to serve as secretary, he decided that the timing was right to return home. “I really enjoyed serving the agriculture industry of South Dakota, especially the farmers and ranchers,” Anderson said, “but I took the job with the understanding I wouldn’t serve the entire term. Instead of waiting until the end of the 1997 legislature, I decided now was the right time to move on.” Anderson plans to spend time with his family after returning to his farm near Bryant.

Darrell Cruea- New Secretary of Agriculture

Darrell Cruea was appointed as the new Secretary of Agriculture for South Dakota. Most recently Cruea was the Rural Ag Networking Specialist in the Governor’s Office of Economic Development for the State of South Dakota. He worked to assess the potential for value-added enterprises in the state, and facilitated the development of networks and cooperatives to realize that potential. Cruea and his wife Cindy currently live in Pierre, South Dakota. They have four children.

IN THIS ISSUE

Department of Agriculture Notes

RESTRICTED USE PESTICIDE DEALER SALES RECORDS - When sales are made to a company, corporation, partnership or other entity in which the applicator is not identified, the records must list the name, address and license/certification number of the applicator. Recent audits have revealed increasing number of sales made to companies or corporations such as A. B. Farms, Inc. or Smith Family Farms with no listing of the name of the applicator or a certification number. ARSD 12:56:10:06(2) requires the name, address, certification or license number of the private or commercial applicator.

BLOCK CLEARANCE - The South Dakota Department of Agriculture (department) has been actively pursuing block clearing all South Dakota counties from the need for conducting black-footed ferret surveys in areas where it has been determined that there is no potential for black-footed ferret occurrence. Since the program began in 1993, 45 South Dakota counties have been block cleared. The department is currently working with the US Fish and Wildlife Service (USFWS), Animal Damage Control (APHIS/ADC), and the South Dakota Department of Game, Fish and Parks (SDGF&P) to review six more counties to determine whether these counties meet the requirements for block clearance.
The department has been aided in its block clearance efforts by County Weed and Pest Supervisors, County Extension Agents, the US Forest Service, the USFWS, the SDGF&P, APHIS/ADC and several private citizens. The department will continue it's block clearance efforts until all counties have been evaluated for their potential to be block cleared.

Operational Area Containment Bulletin

Recent newspaper articles have reflected on the number of applicators working to protect the state water resources. The president of the South Dakota Aviation Association, Jim Anderson of Kennebec, summed it up well by saying, "Cleaning up a pesticide spill can cost more than the investment in a protective barrier." Anderson also stated, "It's good insurance. A hose can break. A fitting can crack. If you've got a pad, it's not a problem."

"It's good insurance. A hose can break. A fitting can crack."

Citizen awareness and concern with the pesticide industry as a whole has grown in the past few years . The Pesticide Handling and Discharge Response Procedures and Plans have been implemented as a means of limiting potential for discharges from areas where pesticides are handled. These plans may prove to be valuable tools in preventing a spill as well as in showing the community that the industry is using pesticides in the safest manner possible. If you have any questions or need a copy of example plans and procedures or other information, please contact the Department at:

South Dakota Department of Agriculture
Division of Agricultural Services
Office of Agronomy Services
523 E. Capitol, Foss Building
Pierre, SD 57501
1-800-228-5254

Cyanazine(Bladex) cancellation

The USEPA has announced that registrants of cyanazine products have agreed to a phase out cyanazine use by 12/31/02. Cyanazine is currently registered for weed control in corn and cotton.

RATES REDUCED OVER NEXT 6 YEARS

The agreement allows for use of cyanazine at 6.5 lbs. active ingredient per acre per year now, 5 lbs. for 1997, 3 lbs. in 1998, and 1 lb. beginning in 1999. Cyanazine products may be distributed and sold through 9/30/02, and used through 12/31/02.

Source: Federal Register

7/25/96

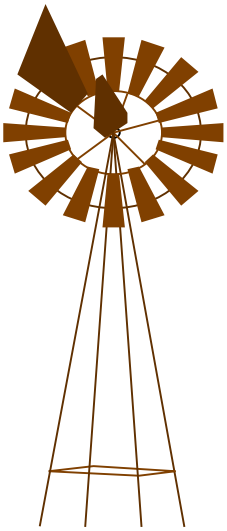
The Fertilizer Management Plan

The South Dakota Department of Agriculture is currently developing the states' Fertilizer Management Plan. The plan is intended to promote wise use of fertilizer and other plant nutrients to improve both agricultural and non-agricultural plant production. The emphasis of the plan will focus on educational and outreach efforts. A committee of technical experts, industry representatives, state and federal agency personnel, and agricultural producers are cooperating to develop the plan.

Questions and comments may be directed to the Department of Agriculture at 1-800-228-5254.

Water Quality Monitored in South Dakota

Two reports released by the Department of Environment and Natural Resources, Division of Financial and Technical Assistance, Geological Survey include information on pesticide monitoring in the Big Sioux Aquifer. The two documents are entitled: Water- Quality Monitoring and Evaluation of Nonpoint-Source Contamination In The Big Sioux Aquifer, South Dakota, 1989 Through 1992 (Open-File Report 67-UR) and Water-Quality Monitoring and Evaluation of Nonpoint-Source Contamination In The Big Sioux Aquifer, South Dakota, 1993 (Open-File Report 70-UR). They report on the findings of 232 ground water samples analyzed for pesticide contamination.



The data indicate that of the selected pesticides analyzed, atrazine and cyanazine (Bladex) were the most frequently found pesticide contaminants. Thirty-four samples had detectable levels of atrazine. The contaminate levels ranged from 0.11 ppb to 4.2 ppb (the maximum contaminant level for atrazine under EPA's Drinking Water Regulations is 3.0 ppb) with an average of 0.62 ppb. Other pesticides found included: the atrazine metabolites -- desethyl atrazine and desisopropyl atrazine, dicamba (Banvel), picloram (Tordon), metolachlor (Dual), bentazon (Basagran), alachlor (Lasso), trifluralin (Treflan), 2,4-D, and EPTC (Eradicane).

Determining aquifer-wide trends have not been successful from this data to this date. Ground water monitoring will continue in the Big Sioux Aquifer and several other surficial aquifers in the state in an effort to identify any changes in water quality and contaminant trends.

Copies of the reports can be obtained from the:

South Dakota Geological Survey
Science Center
414 East Clark Street
Vermillion, South Dakota 57069-2390
605-677-5227

Spray Drift- More Problems in 96?

Spray drift from the site of application which injures sensitive plants seems to be becoming more of a problem in recent years. A large percentage of complaints investigated by the Department of Agriculture involve drift. Is it because of product formulation changes, spraying at the wrong time or under poor conditions, or a growing tendency of citizens to report crop injury? It is

hard to say for sure, but is probably a combination of the above.

We do know that with every application there is some degree of drift, either vapor or particle. Vapor drift occurs when the pesticide evaporates, generally during high temperatures and low humidities. Most drift, however, happens when fine spray particles hang in the

Smaller droplets
+ higher pressures
= Greater Drift

air and move off target. This is called droplet drift.

The main factors in determining the amount of droplet drift are nozzle size and pressure. Nozzles operated under high pressure and producing small droplets create greater drift potential. Small droplets fall to the target slower and are more prone to effects of wind.

So, is spray drift more of a problem in 1996 compared to other years? It's hard to say, but it certainly appears that it is more on the minds of the community. The challenge to the pesticide applicator is to minimize drift and eliminate or reduce the chance of off-site damage, reducing the chance of a complaint from your neighbor. One method of prevention found to be effective has been use of buffer zones, or areas left unsprayed. This area becomes the area drifted onto rather than the crop on the other side of the fence. Contact your local extension office or pesticide application professional for further advice and procedures for applying pesticides in a manner that can reduce drift potential. Contact your local nozzle distributor for the correct nozzle for your use.

Pesticides and Groundwater SMP Regulation; Proposed Rule

The U. S. Environmental Protection Agency (EPA) released a notice of Proposed Rulemaking on June 26, 1996. Five currently registered pesticides (atrazine, alachlor, metolachlor, cyanazine and simazine), all raise ground water concerns, are possible or probable human carcinogens, and are being considered for management under State Management Plans (SMP's). An SMP is a State plan which describes the actions a State will take to protect its ground water resources from pesticide contamination. Since 1986, the USEPA has received extensive input on the proposed regulation. Comments from the states helped EPA realized the need to develop a partnership that would allow the state to take a lead role in managing pesticide risk in the state and use local expertise to provide ground water protection. Under current EPA regulation, the EPA is compelled to cancel a product nation wide if a contamination concern arises, even if the concern is confined to a small geographic area. This SMP mechanism should help avoid national cancellation of important agricultural chemicals and allow the state to manage it's specific areas vulnerable to the particular pesticide. A Generic SMP lays out the framework of a plan, regardless of what pesticide is being restricted. A Pesticide Specific SMP (PSSMP) details the *specific* actions a state will take to prevent a *particular* pesticide from contaminating ground water. In South Dakota we are nearing completion of a second draft of a Generic SMP.

Once the final rule is issued, the State will have 33 months to complete development of a specific plan for each SMP pesticide. A State must submit a PSSMP to EPA for approval if it wishes to continue sale and use of any of the five previously listed pesticides in the state. If the plan is disapproved, the State may revise it to address EPA's concerns and resubmit it to the EPA Regional office. The EPA will formally address the plan(s) every two years.

This notice of proposed rulemaking allows opportunity to comment on this proposed regulation until November 23, 1996. Persons interested in more information on the regulation may contact Arden Calvert of the USEPA at (703) 305-7099 or calvert.arden@epamail.epa.gov.

Generic Pesticides And Ground Water State Management Plan(SMP)

The Fall 1995 South Dakota Pesticide Applicator Update indicated that the Generic SMP had been submitted to EPA Region 8 for preliminary review and comment. Comments have been received and the Ground Water Advisory Group has made suggestions necessary to complete the next draft.

As soon as the EPA concurs with the Generic SMP, development of Pesticide Specific State Management Plans will begin. Specific Pesticide Ground Water SMP's will follow the Generic SMP as a guide. There are currently five herbicides (primarily used on corn) suggested for regulation under the proposed rule. The Pesticide Specific State Management Plans will be developed by the same advisory group with opportunity for extensive public input. EPA approval of the plans will be necessary in order for the proposed SMP pesticides to be used or distributed in South Dakota.

Pesticide Registration NOT Claim of Efficacy

The USEPA has warned farmers and the courts that they make no efficacy or property damage assessments of agricultural pesticides when issuing product registrations. In fact, EPA stopped evaluating efficacy nearly 20 years ago. Rather, EPA's label review process concentrates on assuring that the pesticide not cause "unreasonable adverse effects on the environment".

Also included in the label review process is a review of the product use directions with an eye to insuring the protection of pesticide applicators and farm workers. Consumers are also considered in this label review process. EPA is able to estimate dietary exposure by regulating the pesticide use rates.

This notice is intended to clarify that EPA's approval of a pesticide label does not reflect any determination on the part of EPA that the pesticide will be efficacious or will not damage crops or cause other property damage.

Worker Protection Standard (WPS) Brief outline and recent revisions

The WPS is a federal regulation designed to protect agricultural workers (people involved in the production of agricultural plants) and pesticide handlers (people mixing, loading, or applying pesticides or doing other tasks involving direct contact with pesticides). This regulation covers pesticides (herbicides, insecticides, fungicides, etc.) used in the production of agricultural plants on farms, forests, nurseries, and greenhouses.

Many parts of this regulation took affect in the spring of 1994. Part of the requirements include providing safety training to those employees not already trained as certified applicators. Training provisions were delayed and became effective on January 1, 1995. After this date and before handlers or workers may work in areas of agricultural pesticide use, they must receive training as specified by the WPS.

This regulation allowed for exceptions to certain of its' provisions. Since 1992, several exceptions have been requested of the USEPA. Following is a brief summary of those that have been granted with the effective date in parenthesis.

Exception for Limited Contact Activities- (April, 1995) allows, under certain conditions, workers to enter pesticide treated areas during a restricted entry interval pesticide treated surfaces.

(REI) to perform tasks involving limited contact with

Exception for Irrigation Activities- (April, 1995) allows, under specified conditions, workers to enter pesticide treated areas during an REI to perform irrigation tasks. These exceptions allow workers the flexibility during an REI to perform limited contact tasks and irrigation tasks that could not have been foreseen and which would cause significant economic loss if delayed. At the same time, the exception includes significant provisions to limit pesticide exposure and risk to employees performing these tasks.

Amendments to the WPS- One amendment decreases from 30 days to 7 days, the time during which decontamination supplies (soap, water, paper towels) must be available to workers entering fields when low toxicity pesticides are used. Low toxicity pesticides are those with restricted entry intervals of four hours or less. A second amendment allows employers to replace the Spanish language on warning signs with another language tailored to suit the language most often used by workers in that location. Smaller warning signs in nurseries and greenhouses are allowed under certain circumstances.

If you are interested in receiving a copy of the document "The Worker Protection Standard for Agricultural Pesticides- How to Comply", please contact your local Cooperative Extension Service office or the South Dakota Department of Agriculture at 523 E. Capitol, Foss Building. Pierre, SD 57501 or by calling 1-800-228-5254. Also available are video tapes and other materials for use in conducting worker and handler training.

Bald Eagles Nesting In Meade County

Early this year, a pair of bald eagles were spotted exhibiting courtship behavior in Meade County. By mid April, personnel from the South Dakota Department of Game, Fish and Parks observed one eaglet in a nest occupied by this pair. While the bald eagle frequents many South Dakota rivers during the winter, this marks only the third year of successful nesting in South Dakota since 1885. Other sites in South Dakota where successful nesting has occurred in the past three years are Brown and Gregory Counties.

The bald eagle's diet is chiefly composed of fish, but they will also eat waterfowl, small mammals, and carrion. In 1995, the status of the bald eagle was downlisted from endangered to threatened because of increased nesting success over the past two decades.

Post-Harvest Pesticide Applications

According to data recently published in USDA's Pesticide Data Program Annual Summary, Calendar Year 1994, 30% of the pesticide residues USDA found in fruits and vegetables in 1994 resulted from pesticide applications done after the produce was harvested. These residues are primarily fungicides and growth regulators, to control mold and fungus growth and sprouting in produce being stored and transported.

7589 samples were analyzed, including apples, bananas, broccoli, carrots, celery, grapes, green beans, lettuce, oranges, peaches, potatoes, sweet corn and sweet peas. 83% of these products originated in the United States (none from SD). 4671 samples contained residues and 62 different pesticides were detected. However, 1165 of these residues were due to pesticides applied after harvest. Of all the samples tested, only 1.3% were violative, and most of these were for residues where no tolerance has been established.

This report is significant in that it documents that not all pesticide residues are caused by agricultural producers. Other parts of the food production and distribution system share responsibility for some of these residues. The low violation rate indicates that most people are carefully using pesticides, however.

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